



**CENTRE AGRO-ENTREPRISE**  
Mali Sustainable Economic Growth

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Study on the Export Potential for Alternative Products  
from Mali to the European Market

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## **Abbreviations**

AMELEF	Association Malienne des Exportateurs de Legumes et Fruits
APELEF	Association Professionnelle des Exportateurs de Legumes et Fruits
APEP	Agence Pour la Promotion de l'Entreprise Privée
APROFA	Agence Pour la Promotion des Filières Agricoles
ATRAPAL	Association de Transformateurs de Produits Agricoles, Legumes et Fruits
CCIM	Chambre de Commerce et d'Industrie du Mali
CMDT	Compagnie Malienne de Développement Textiles
EU	European Union
ISCOS	Institut Syndical pour la Coopération avec les Pays en Voie de Développement
LTA	Laboratoire de Technologie Alimentaire
SEG	Sustainable Economic Growth
SOMACO	Société Malienne des Conserves
UNTM	Union Nationale des Travailleurs Maliens

## **Executive Summary**

1. Mali has a wide range of existing products with export potential in Regional and/or European markets (e.g. dried onions, hibiscus, sesame seeds/oil, okra, cashew nuts, mango pulp).
2. Opportunities exist in Regional and European markets for many products. However, it is not just being able to offer 'products' that create long-term growth and sustainability on export markets. In a highly competitive global market, the successful exporter needs to be able to offer a total 'service package'. These include a high quality product, continuity of supply, efficient communications and reliability.
3. The areas showing the fastest growth in demand in European markets are natural health foods and drinks, organic products, herbal medicine/botanicals and natural body care and cosmetics. These are all areas which offer Mali the opportunity to supply ingredients/raw materials and/or create value-added. The European market is, however, demanding. In order to gain market access, Malian exporters will need to meet the stringent market requirements.
4. The main constraints identified regarding the development of exports in the agri-business sector include: production/processing, organizational, institutional and marketing. Improvements are required in these areas if Mali is to succeed in exploiting existing opportunities in regional and/or European markets.
5. A coordinated national strategy on export promotion and development will assist in creating a positive image for Malian products on regional and international markets.
6. A structured approach is required in export market development. This should be undertaken on a continuous basis (as opposed to 'ad hoc') with selected importers/partners in target markets.
7. For mangoes and fine beans, alternative markets need to be found while efforts should be made to create value-added products.

## **1. Introduction**

This study focuses on the export development of "alternative products" in the agribusiness sector on regional and international markets. It falls under the overall framework of the USAID program for Sustainable Economic Growth (SEG) in Mali.

The mission was undertaken from 22nd August to 14th September 1998 in Bamako, Mali. The consultant was part of the Chemonics team involved in the rapid assessment of the agribusiness sector for the draft first year plan to be presented to USAID. A further week was spent on conducting further market investigations in Europe amongst the trade and consulting other relevant sources of information. This was in order to fine tune and validate the preliminary selection of products with export potential.

### **1.1 Objectives**

The overall objective of the study is the preliminary assessment of products with export potential to selected European and/or regional markets. Its main purpose is to assist decision makers in the selection of priority products for exports. This will form the basis for pre-feasibility studies on selected products as per the work plan.

The study specifically aims to:

- (i) examine the current range of products including those with potential for expansion in existing and/or new markets or through increased value-added;
- (ii) identify and screen alternative products with export potential in light of demand, market trends, prices and international competition on European markets;
- (iii) assess products with specific windows of opportunity;
- (iv) examine the constraints facing the development of exports on the European market; and
- (v) make recommendations on the development of exports in the agribusiness sector targeted at selected markets in the European market.

### **1.2 Methodology**

The methodology adopted was a combination of secondary research, field interviews and observation. This included a review of relevant literature nationally and internationally. Interviews were also conducted with participants in the export sector. These included exporters, producer groups, processors, international agencies, research organizations and the airlines. Visits were made to markets and retail outlets in the Bamako area.

Telephone interviews with importers, brokers and other relevant sources were undertaken in Europe from 24th to 30th September.

### **1.3 Limitations of the Study**

The study is mainly concerned with fresh and processed fruits and vegetables for exports to selected markets in the European Union. The regional market and other products such as cereals have been examined elsewhere and are therefore not the focus of this study.

Production, technical and economic feasibility aspects have not been taken into account in the preliminary assessment and selection of products. These will be the subject of later feasibility studies.

### **1.4 Organization of the Report**

The study has been organized into three chapters.

**Chapter One** provides the context of the study and is divided into three sections:

- (i) Section 1 examines current opportunities and trends in the European market for Malian exports. It describes a whole range of factors pertinent to successfully penetrating the European market.
- (ii) Section 2 presents an overview of the agribusiness sector in Mali.
- (iii) Section 3 provides a situational analysis of the horticultural sub-sector in Mali. It examines the opportunities and constraints within the context of the development of international exports.

**Chapter Two** focuses on products with export potential in the European market. It is divided into two sections.

- (i) Section 1 provides a preliminary selection of products with export potential in the European Union.
- (ii) Section 2 presents profiles of selected products with export potential in the European Union. It assesses the supply, demand, prices, regional/international competition and market prospects.

In **Chapter Three**, recommendations are presented. Analyses of the improvements required for the export development of the horticultural sub-sector are undertaken.

# Chapter One: Background

## 2. The European Market

The European Union (EU) consists of a market of around 372 million consumers. It is an attractive market for developing countries because of the high disposable incomes of its population. Although a single market, consumer tastes, preferences and buying habits differ. Each market has specific market requirements. The market is highly competitive and demanding with a large number of supplying countries vying for market share in many product categories. Exporters need to be able to provide a total package in terms of quality, continuity of supply, reliability and service to succeed and survive in this market. There is no longer room in the European market for the occasional or unprofessional exporter.

### 2.1 Opportunities and Trends

Opportunities for Malian exports and the main underlying trends in the European market are described in the following paragraphs.

The industries offering the best opportunities for Malian exports are in the food and drink, pharmaceutical and cosmetic industries. Opportunities exist for new suppliers in the following markets:

- (i) For large volume internationally traded commodities for which modest market share can be gained within a relatively short space of time (e.g. spices). The sheer scale of the global market for such products permits access without causing oversupply problems. Moreover, enlightened traders/end-users see advantage in diversifying their sources of supply for strategic and/or security reasons.
- (ii) With a wider range of relatively smaller volume internationally traded products (niche products) with relatively short growing periods targeted at specific niche markets (e.g. dried fruits and vegetables). This provides exporters with more options and reduces dependency on one or a few products which can be subject to volatile and large price fluctuations depending on global demand/supply. Moreover, it gives exporters the flexibility and the opportunity to respond swiftly to global demand/supply changes.

The most important trends are:

#### (i) Concentration and Consolidation in European Food Retailing

There has been a trend towards concentration and consolidation in recent years in the European food and drink, pharmaceutical and cosmetic industries. A few firms dominate the market leading to increased purchasing and bargaining power vis-a-vis suppliers.

The European food industry is dominated by a few large retail outlets (i.e. "the multiples"). The multiples have seen their market share increase significantly over the last fifteen years. This has been at the expense of the wholesale markets and independents who have seen their market share decline. Today the multiples in the UK, France, Germany and Scandinavian countries account for over 50 percent of sales compared to less than 40 percent fifteen years ago. The biggest opportunities for Malian exporters exist in either supplying the multiples directly or the importers/packers who provide value-added services (e.g. distribution, re-packing, ripening).

This market is , however, extremely demanding. Exporters need to have well managed and efficient operations that are able to meet the level of service required by the multiple groceries.

(ii) Health

The European consumer is becoming increasingly health conscious and there is a trend towards everyday 'natural' and/or fresh products. Recent health scares such as 'mad cow disease' and pesticide residues in fresh fruits and vegetables have fuelled the demand for a wide range of natural products. The areas showing the fastest growth in demand include organic foods, herbal medicine/botanicals and natural body care and cosmetics. Mali is well placed to meet this demand because of its long growing season. Furthermore, some of the products in demand are currently available on the local market, have had trials undertaken or could be easily cultivated. Exporters will, however, need to meet the stringent demands of the export market.

Opportunities in a wide and diverse range of products exist in:

- Culinary herbs and spices;
- Condiments;
- Speciality oils and herbs in oil;
- Selected exotic fruits and vegetables;
- Baby vegetables;
- Organic fresh fruits and vegetables;
- Organic processed foods;
- Fresh juices and health drinks;
- Selected essential oils; and
- Medicinal plants.

(iii) Quality

With consumers' growing awareness of health matters, traceability has become an issue. Consumers together with consumer pressure groups are demanding better quality products. These need to conform to strict guidelines in production, processing and marketing. Participants involved throughout all stages in the supply chain such as producers, processors, freight forwarders and retailers are increasingly required to show due diligence.

In order to gain distribution in the large retail outlets, producers and manufacturers increasingly have to be able to show where the products have come from, how they have been grown, details of their history, and even what crop was in the ground before they were sown. This places specific demands on the meagre resources of producers in developing countries. Supplying countries prepared to offer high quality products and meet the stringent requirements of the European market will be in the best position to exploit the existing opportunities. This can only be achieved through appropriate investments in infrastructure.

(iv) The Environment

Organic products merit special mention because of the significant growth in demand in recent years. There are however barriers to market entry (see below). Sales of organic products in the EU were valued at US\$ 4.5 billion in 1997. The market is forecast to grow at annual growth rates of 10-15 percent. The market has shown healthy growth on the back of recent health scares and the strong 'Green' movement, particularly in Germany and the Scandinavian countries.

In order to obtain organic status, certification is required from a third party. Certification can be obtained from various certification bodies in Europe such as the Soil Association (UK), KRAV (Sweden) DEMETER (France), SKAL (Netherlands) or IMO (Switzerland). Both farmers and processors must be certified. The process of certification includes annual inspections and can be expensive, particularly for developing countries, as travel expenses have to be covered. Fees vary according to the certification body. Some charge a flat fee while others take a percentage of sales of certified product. The additional administration required which includes rigorous and accurate record keeping may be onerous for some developing countries. Volumes of products required for the organic market are also much smaller than for conventional produce. There is potential to increase volumes provided buyers are confident about continuity of supply. The benefits for exporters include:

- **Demand** - Good and growing demand for a wide range of products - demand currently outstrips supply;
- **Competition** - Less competition compared to conventional products for existing or alternative products;
- **Prices** - Higher prices compared to conventional produce (premiums vary from around 25-40 percent depending on the product). The price differential is however narrowing for some mainstream products as producers are becoming more efficient in organic methods of production;
- **Partnerships** - More willingness by specialised organic importers to enter into partnerships with serious and reliable producers/exporters. This is in order to secure supplies. Fixed term contracts, guaranteed prices, bank guarantees and even payment in advance can be negotiated with companies particularly for products in short supply;
- **Ethics** - In general, specialised organic importers (some of which are also growers) are guided by a code of ethics. Issues of concern include the environment, problems of developing countries and exploitation of their members (producers).

The benefits described above compensate for lower yields, the cost of certification and the effort required to produce and process products according to established norms of organic production. These, however, need to be weighed against the costs and sustainability of exports of organic products within the context of the agribusiness sector in Mali.

Some manufacturers and retailers are seeking endorsement of products from the 'Fair Trade' Foundation. This ensures that growers from developing countries are given a fair price for

products. This is in response to growing consumer interest and concern about ethical issues and policies of firms.

(v) Convenience

As the number of women going out to work grows, less time is available for cooking and household chores. This has led to an increase in demand for products which offer convenience. The fastest growth has been exhibited in such areas as chilled ready meals, prepared sauces, fresh soups, chilled fresh juice, pre-packed salads, freshly cut and washed pre-packed vegetables and herbs. These are all areas where there are opportunities for Malian exporters to supply the ingredients and/or raw materials or to add value at source resulting in higher prices.

(vi) Partnerships

The grocery multiples are gaining control of the supply chain through the selection of fewer, larger suppliers who they prefer to deal with. Partnerships are increasingly being formed or closer links forged either directly with growers and/or with importers and their producers who supply them. Producer contracts are concluded where an export programme is agreed for the season at a guaranteed price. This is beneficial to exporters as it allows for better planning and management of cashflow/working capital.

In order to become part of such a scheme, exporters need to be able to offer a product for which there is a demand. Furthermore, they need to be able to show and give buyers the confidence that their operations have the necessary systems and infrastructure in place. The supermarkets are unforgiving and exporters will need to ensure that they can honor their contractual obligations.

Producer contracts have come about because of the increasingly competitive nature of the business and the need for the supermarkets/importers to secure their sources of supply. It is worth noting that a complex network of relationships exists amongst the various actors in the trade. The exporter intending to supply this market needs to be able to understand the dynamics and to successfully manage relationships. This is necessary in order to achieve growth and maintain long-term relationships with partners.

### **2.1.1 Other Opportunities**

Russia and the former Soviet States will in the future provide additional opportunities for a wide range of products. The Internet and World Wide Web also offer exporters opportunities to communicate with customers worldwide.

(i) Eastern Europe

As the incomes of Eastern European countries rise, there will be increasing opportunities for products from developing countries. Mainstream tropical fruits such as bananas, pineapples and mangoes are still beyond the reach of many consumers in Russia and Eastern European countries. The first wave of countries to gain accession to the EU (Hungary, Poland, the Czech Republic and some Baltic states) are possible target markets. Market development should include identifying importers who have access to these markets for selected products.

(ii) E-Commerce

The Internet and the web have opened up new marketing opportunities internationally for exporters. Although the long established ties between producers, importers, brokers and retailers are expected to continue for many international commodities, access to the Internet or having a WWW site can serve as a useful promotional tool for providing information and communicating directly to buyers or end-users.

It is mainly in the area of processed foods where exporters stand to benefit most. Exporters who are well organized and innovative can create new or alternative marketing channels for their products in addition to their existing markets.

### **3. Critical Success Factors**

Mali has a wide range of existing products (see Section 5), some of which have potential for future growth in some European markets. These are examined in more detail in Section 9.

Malian exporters entering the European market and who wish to deal with importers serving the multiples face strong competition from other supplying countries that are well established in the market. In addition to offering products of a very high quality, suppliers are increasingly expected to meet the importer's requirements of a total "service package" which incorporates the following factors:

<u>Quality</u>	Meeting all requirements relating to size, shape, cleanliness, appearance and consistency;
<u>Uniformity</u>	It is not sufficient that a consignment or that each carton contains mostly good produce. It must all be uniformly good. Good grading and standardized products in the appropriate packaging is the norm.
<u>Cool Chain</u>	For many products (for example, sea freighted mangoes and high-value fine vegetables), it is now required that cool chain facilities are available from the farm to the importer's warehouse.
<u>Quantity</u>	Importers are only interested in products that can be shipped in sufficient volumes and are viable.
<u>Regularity</u>	Importers are only interested in suppliers who are regularly on the market. No market exists for suppliers who are erratically in and out of the market.
<u>Punctuality</u>	There is no market for those suppliers who cannot meet scheduled delivery dates.
<u>Packaging</u>	Increasingly specific packaging specifications are required. These include carton/bag types, sizes and occasionally pre-packing.
<u>Presentation</u>	It is important that the product, packaging and labelling be presented in an attractive form.

Promotion Sales support at trade and consumer levels is frequently required.

Communication It is important that suppliers respond to the requests of importers speedily and efficiently. Regular communication with importers is essential.

Transportation and Logistics Suppliers should use the best mode of transportation to ensure that goods arrive in good condition. Exports should be well organized and coordinated for distribution to different customers or markets.

#### **4. Overview of the Agribusiness Sector in Mali**

##### **4.1 Structure of the Industry**

The Malian agribusiness sector is highly fragmented. It is characterised by a large number of smallholder farms, micro and small/medium-sized enterprises. Factors which have had an impact on the sector include the devaluation of 1994 and market liberalization. The devaluation of 1994 resulted in making exports more attractive and competitive while liberalization has encouraged new entrants. Other factors which make it imperative to develop a vibrant, dynamic and efficient agribusiness sector include high population growth rates of around 4 percent per annum, high unemployment and the trend towards urbanisation.

The sector can be divided into:

##### **(i) Fresh Fruits and Vegetables**

A large number of small firms are involved in the production and marketing of fresh fruits and vegetables for the domestic market. There are over 45 firms involved in the exports of fresh fruits and vegetables to the European market.

The main products currently exported to the European market are mangoes and fine beans. There are occasional exports of other products such as cherry tomatoes, okra and sweet peppers. The quantities shipped are, however, negligible. Exports of mangoes in 1998 were around 845 tons while fine beans exports were around 660 tons. Current exports of fresh fruits and vegetables to the sub-region are limited and there is potential for expansion of some products (e.g. potatoes, onions, okra). It is reported that Malian mangoes are purchased and re-exported by Ivorian exporters to the European market during the months of May and June.

##### **(ii) Processed Fruits and Vegetables**

The sector is undeveloped and is attracting an increasing number of new entrants. These are mainly small-scale processors or small production units. A wide range of products are processed for domestic consumption (e.g. dried onions, okra). There are few large scale commercial enterprises involved in agro-processing (e.g. SOMACO). SOMACO (Societe Malienne des Conserves) is the only company of a commercial scale present on the market involved in the processing of fruits and vegetables. It has a monopoly in the production of tomato paste, fruit juice and mango pulp. Mango pulp is reported to be exported.

The main types of firms operating in the sector are:

- (a) A small group of around 15 medium to large firms in the formal sector, employing over 10 people each. The majority were formerly state companies who have recently been privatized (e.g. Somaco).
- (b) A large number of small firms operating in the formal sector who mainly serve the local market. These are mainly found in rural areas and use traditional methods of production. Productivity is low and the quality of food reaching the market is poor.
- (c) A multitude of micro-enterprises operating in the informal sector involved in marketing and processing at the artisanal level. Most are part-time family businesses and use rudimentary techniques and lack equipment.

The market can be segmented into two main categories according to the level of consumption (high or low) amongst consumers. These are:

- (a) Products consumed in large volumes (e.g. tomato paste, dried pepper, onion and okra).
- (b) Products targeted at the export market (e.g. dried fruits and vegetables, fruit juice/concentrate and pulp)

It is the second category of products which is of specific interest for export to the European market. These products are relatively new and have been introduced to small scale processors mainly through donor financed projects (e.g. PROSEC ).

Consumption of these products is low on the domestic market. This is because of:

- (a) Unfamiliarity by consumers;
- (b) Price - the majority of consumers are on low incomes and cannot afford these products;
- (c) Products have not been adapted or incorporated in the local diet.

Exports of processed fruits and vegetables to the European market is practically non-existent. Le “Groupe Service de la Production de Koutiala” is the only organization reported to be exporting limited volumes of dried mangoes (less than 2 tons) to Italy under a project sponsored by ISCOS/UNTM.

The two main areas where the strongest growth is forecast in European markets are frozen fruit pulp and sliced fruits. These are mainly used in dairy products (e.g. yoghurt, ice cream) and drinks. Dried fruits and vegetables such as dried mangoes are products for niche markets, and are traded in relatively smaller volumes. Demand is growing, albeit at a low base, particularly for additive free, natural or organic products. Dried mango production is estimated at less than 5 tons in Mali.

Some of the products exported to the regional market include dried okra, onions, and hibiscus. These are mainly exported through informal trade channels.

(iii) Other Products (Cereals and Forestry Products)

Shea nuts, natural gum arabic, ground nuts and sesame seeds are exported by some large exporters to Europe. The operators in this sector are reported to be well organized with many having long and well established ties with importers in international markets. One of the leading exporters is Kagnassy et Fils. This company has branches in other West African countries.

## 5. Product Range

### 5.1 Fresh Fruits and Vegetables, Cereals and Other Processed Products

A wide range of products were identified. Some products may be grown on a very small scale (marked with an "\*") or collected from the wild (e.g. some spices and nuts). Some small scale producers/processors (e.g. UCODAL, La Maraichere, Verger, Mali Cajou) have their products sold in the supermarkets. There are specific products that are either produced or processed exclusively for sale to the expatriate community or to relatively well-off indigenous consumers (e.g. broccoli, basil).

<u>Fresh Fruits:</u>	Mangoes, Melons (including Watermelon and Galia*), Strawberries*, Oranges, Mandarin Guava, Tamarind, Pineapples, Bananas, Papaya (Solo), Grapefruit, Lime, Zaban, Avocado. Pineapples and avocados are grown in small quantities in Mali; they are mainly imported from the Ivory Coast.
<u>Fresh Vegetables:</u>	Fine Beans, Mangetout, Sugar Snaps, Asparagus*, Broccoli, Cauliflower, Cabbage, Peas, Okra, Onions, Garlic, Tomatoes, Cherry Tomatoes, Potatoes, Maize, Aubergines, Sweet Peppers, Cayenne Pepper, Paprika, Ginger, Celery*, Beetroot*, Courgette*, Radish*, Spinach, Carrot, Lettuce, Spring Onions, Sweet Potatoes, Cucumber, Yams, Cassava
<u>Fresh Herbs:</u>	Parsley, Thyme, Mint, Rosemary, Basil
<u>Cereals and Oilseeds:</u>	Rice, Cottonseed, Groundnuts, Sesame, Maize, Sorghum, Millet, Wheat, Fonio, Niebe
<u>Forestry Products:</u>	Shea Nuts and Butter, Gum Arabic, Cashew Nuts, Nere, Pois Sucre
<u>Dried Fruits:</u>	Mangoes
<u>Dried Vegetables:</u>	Onions, Okra, White Beans, Black Eyed Beans
<u>Dried Herbs &amp; Spices:</u>	Chilli Pepper, Paprika, Cumin, Cinnamon, Cloves, Black Pepper (corns), Ground Ginger, Oregano, Ground Garlic, Aniseed, Amaranth leaves, Tea, Quinquelibia

Processed Products: Hibiscus, Syrups (Fruit), Fruit Juice (mango, tamarind, ginger, zaban,), Mango Pulp, Jam, Honey, Tomato Paste, Pickled onions, cucumber, broccoli, peppers, Chilli sauce, Peanut paste, Pesto

Essential Oils: Bergamot (Trials)

Local Delicacies: Cereals - Moni-Kuru Seche, Degue mougou, Bassidjalan, Gnintin degue, pre-cooked fonio

## **6. The Export Market**

### **6.1 Market Attractiveness**

Mali's proximity to Europe and its ability to grow a wide range of products (see above) over a long growing season make exports an attractive option to the European market. It also has the advantage of competitive airfreight rates compared to some other supplying countries (e.g. East African and Latin American countries). Access to additional airfreight capacity is also available, if this can be properly organized amongst exporters. However, being a land-locked country with high transportation costs by road, it is limited in the range of products that can compete on European and international markets. It needs to focus on exports of high-value products.

## **7. Constraints Developing Exports of Horticultural Products to European Markets**

### **7.1 Fresh Fruits and Vegetable Exports**

Mali had up to the early 1990's succeeded in building an image on the European market for excellent tasting mangoes and quality fine beans. In recent years, however, exporters have been experiencing increasing difficulties in marketing these products. Over the last 15 years, Mali has been gradually losing market share to competitors. For example, its market share for mangoes fell from around 14 percent in 1985 to 6 percent in 1990. Exports of fine beans have remained static or shown modest growth. Exporters report a disastrous season during 1997/98, particularly for fine beans. The problems in the industry are structural as well as organizational and have contributed to the decline in exports and slow pace of development of the sector.

The main constraints facing the sub-sector are described below. Some of these can be equally applied to the processing industry. These include:

#### **(i) Gaps in the Export Calendar**

Malian products do not have a continuous presence on the European market. Exports of mangoes and fine beans by air are concentrated during the months of November to June. During the peak months (December and January), there is intense competition for space amongst exporters. This is mainly because of the lack of planning and inaccurate forecasting by exporters in terms of their needs for airspace. During the rest of the year, there are no alternative products to fill in the gap for airfreight space and to provide critical mass which is necessary for the development of the sector.

#### **(ii) Lack of Professionalism and Specialization Amongst Exporters and Producers**

The majority of exporting companies have been formed recently. Exporters are therefore relatively inexperienced in fresh fruits and vegetable exports. They lack sufficient experience in such areas as production, pre-treatment and postharvest techniques, export marketing and management and negotiating skills. Other obstacles include difficulty of access to market information and limited knowledge of markets.

Furthermore, as the export season is for a duration of 6-7 months of the year, the majority of exporters and producers are engaged in secondary activities to supplement their income. The lack of a continuous presence on the export market is likely to create a loss of momentum and drive in export activities. Investments in training of staff/producers/exporters in meeting the requirements of the export market (e.g. quality control, sorting, communications) may become less effective after relatively long periods of absence from export activities. Having a range of alternative products which can be added to existing products makes it possible to make continuous and incremental improvements in the drive towards quality and excellence.

### (iii) Concentration of Exports to One Market

The main market for Malian exports is France. The majority of exporters, therefore, only have experience in this market. They lack the necessary resources, skills, knowledge and understanding to diversify into other markets. Moreover, entering new markets can be risky.

As exporters have limited market outlets, there is a tendency to rely on a few importers in France. At least three exporters interviewed reported shipping fine beans to the same exporter in France on an individual basis.

The lack of collaboration and perceived mistrust amongst exporters weakens their bargaining power and gives importers the opportunity to play one exporter against another. Furthermore, shipping large quantities of a product from the same or similar origin can work to the detriment of exporters. There is a risk of this occurring in highly competitive and/or niche markets, where a glut in the market place can lead to a reduction in prices. Exporters from Mali faced such a situation last season when Burkino Faso exceeded its quota for exports of fine beans to the French market. Measures should be taken to ensure that sub-regional agreements on export strategy to European markets are adhered to and enforced.

### (iv) Dependence on Outgrowers and Quality Problems

Exporters depend entirely on outgrowers with small holdings to supply products for the export market. As exporters involved in fresh fruit and vegetable exports do not grow a certain percentage of crops on their own farm for the export market, there is no buffer against non-delivery from outgrowers. Moreover, the organizational, logistical and management problems of dealing with a multitude of small outgrowers dispersed throughout many villages in the rural areas can be challenging for exporters and stretches their meagre resources.

The difficulties described above result in exporters not being able to accurately forecast volumes for shipment to buyers in export markets. Furthermore, they run the risk of not being able to honor orders. One of the consequences of this is that invariably they lose business to competitors or never grow beyond a certain level.

Other constraints include inadequate institutional support in the form of a well organized and efficient extension system. This, together with the lack of uniform export quality standards throughout the sector and an inadequate cold chain infrastructure throughout the supply chain (i.e. pre-cooling, refrigerated trucks, cold store, containers on-farm for sea shipments), give rise to quality problems.

Exporters were reported as sub-contracting outgrowers and failing to honor payment arrangements or defaulting on payment. The ensuing lack of trust and loss of confidence amongst outgrowers has dire consequences for the sector. Exporters reported stiff competition amongst one another for products from outgrowers. This results in high prices which may make it unattractive to export. The consequences of this are cancellation of orders with buyers in export markets.

(v) Irregularity of Airfreight

Exporters appear to lack confidence regarding the reliability of flights from Air Afrique, the main carrier with a monopoly in Mali. This hinders the development of exports. The problems with airfreight and Air Afrique have been well documented elsewhere (see Steve Humphrey's report).

(vi) Exporters are Price Takers

The system of commission payment practiced in most European markets works to the disadvantage of exporters. The uncertainty of not knowing what prices their products will fetch on the market can cause serious cash flow problems for exporters. It is also destabilizing and disruptive for most exporters. The system hinders investment and makes banks wary of lending as they consider it to be high risk.

Because of some of the problems highlighted above (e.g. the lack of professionalism and specialization, unreliability and variable quality) buyers do not have the confidence to offer exporters fixed prices and pay freight collect. In order to do this, buyers need to have confidence that exporters are reliable and can meet the high quality standards of the importer. In recent years, some exporters (e.g. Fruitema) have tarnished the image and reputation of Mali because of cancelled shipments, short deliveries and/or quality problems.

(vii) Absence of Control in Export Markets

Unscrupulous importers in Europe have a field day because small-medium sized exporters from developing countries cannot afford the costs of employing a company to carry out inspections and to verify claims for shipments. Exporters interviewed reported not carrying out inspections because it was considered to be expensive. Unable to verify returns, exporters are forced to accept whatever price is offered by the importer. They also face deductions on all charges of goods unsold (e.g. cost of airfreight and handling, transportation inland, removal of the goods from the importer's premises, etc.).

Inspections from an independent third party provide exporters with feedback on quality problems, give indications on the likely source of the problem and monitor products over time. However, the best way of saving money is for exporters to ensure shipment of good quality

products from source. This can only be achieved through investments in the right infrastructure and strict quality control prior to exports.

(viii) Lack of Access to Credit

The lack of access to credit for small to medium sized exporters is an obstacle to the growth and development of the sector. As the banks lack analysts who specialise in the sector, they are unwilling to grant loans to exporters and other participants in the agribusiness sector. This is because they are considered to be high risk.

(ix) Weak Research & Development

Strong research and development is one of the key elements in gaining competitive advantage on international markets. The Institut d'Economie Rurale (IER), the main research faculty in the country, was reported by exporters as not responding to the needs of the private sector. The lack of communication between producers, exporters and researchers particularly in the area of fresh fruits and vegetables does not auger well for the development of the sector. The organization was considered to be ineffective. This was because it did not have a track record in carrying out applied research which would directly benefit producers/exporters.

IER needs to be strengthened so that it can play a more active role in the agribusiness sector. Continuous funding of selected priority products for export will be required if Mali is to succeed in winning export markets.

## **7.2 Processed Fruits and Vegetables**

Constraints specifically facing the exports of processed fruits and vegetables include:

(i) Small Size of Operators

The quantities currently produced are insufficient to meet the minimum volumes required by buyers in European markets and to make exports viable. Small scale processors need to organize into larger and more cohesive groups in order to achieve economies of scale and exploit opportunities in regional and European markets.

Furthermore, more medium- to large-scale commercial operators need to be attracted into the sub-sector. This is because internationally traded commodities such as frozen pulp/concentrate require capital intensive investments. Increased competition will also be healthy for the development of the sub-sector. As production increases, a canning factory could be established for second grade product for a wide range of complementary products. These could include, for example, fine beans, baby corn, peas and mangoes.

(ii) Quality and Hygiene

Lack of quality standards and poor levels of hygiene means that quality is variable and consumers risk suffering from food poisoning. The majority of products currently manufactured do not meet the stringent requirements of the European market. Quality standards need to be established for the agribusiness sector as a whole. Regular training of operators throughout the supply chain and enforcement of quality standards are necessary to raise standards.

The Laboratoire Technologie d'Alimentaire (LTA) in conjunction with the extension services needs to play a more active role by working more closely with selected processors and following their progress for the selected priority products. Participants involved in exports, both regional and international, should set the lead in raising quality standards. This should filter down to other economic operators in the domestic market and eventually consumers will expect and demand higher quality products. The LTA mentioned that the technique for sun dried mangoes using the current varieties of mangoes had not been completely mastered by processors and that training was required. The main problem is with inconsistency of quality.

(iii) Packaging, Design and Presentation

The current types of packaging available on the market are inappropriate for the majority of products and do not meet the requirements of the export market. The main causes are:

- low purchasing power of consumers;
- small-scale production units;
- low profitability of operations.

Products available on the market are therefore not well protected, are visually unattractive and inappropriate for their use. Labelling is also of a poor quality (photocopies). The main types of packaging identified were:

- (a) Polyethylene sachets - 50g and 100g (dried fruits). The use of polyethylene sachets (50g and 100g) instead of polypropylene for a wide range of products (e.g. dried fruits, cashew nuts) leads to rapid product deterioration.
- (b) Glass jars/containers/bottles - 50g/100g (e.g. jam, mango juice). Processors mainly use recycled jars purchased from hotels/restaurants or markets in Bamako. Processors mentioned a shortage of jars. There is reported to be no production of glass jars in the sub-region. Prices of glass jars/containers are around CFA 150.
- (c) PET bottles - 90cl (e.g. syrups). Bottles are imported from the Ivory Coast and/or purchased from a supplier on the domestic market (Mr. S. Diallo). Bottle caps from the supplier on the domestic market were reported to be of an inferior quality. Prices of imported bottles from the Ivory Coast are CFA 135 compared to CFA 120, if purchased locally. Substantial cost savings could be made if small scale Processors could pool resources together by undertaking group purchasing. It was reported that a price of CFA 75 (delivered Bamako) could be achieved for volume purchases directly from the manufacturer in the Ivory Coast. This represents a saving of around 80 percent.

(iv) Difficulty of Purchasing Equipment

Because of limited volumes, it is often uneconomic for micro-enterprises to purchase the necessary equipment or machinery for processing on an individual basis. Small-medium sized processors operating in the formal sector also have difficulty raising the finance to purchase equipment. This hinders growth and opportunities cannot be exploited. The strong

individualistic streak in some entrepreneurs detracts from the need to pool resources and share equipment.

## **8. Constraints Exporting Fresh Mangoes and Fine Beans to the European Market**

The problems specifically facing the exports of fresh mangoes and fine beans on the European market are as follows:

### **8.1 Mangoes**

#### **(i) Limited Volumes of Exportable Varieties**

The European market demands the brightly colored Florida varieties such as the Haden, Kent and Irwin. Although over 85 varieties of mangoes are reported to be grown in Mali, only a few are suitable for the export market. The main variety of mango available for export in large quantities is the green-colored Amelie. The marketing of Malian mangoes on the European market has been mainly focussed on the Amelie. As European consumers mainly buy with their eyes, the Amelie has limited market appeal. Kent and Keitt, which are varieties more suitable for export are reported to be available in significantly lower quantities than Amelie.

The Amelie, together with Keitt and Kent, were reported by the Laboratoire de Technologie Alimentaire (LTA) of the IER as being one of the best varieties for processing into dried mangoes, fruit juice and pulp. It should therefore be used more for processing. Exports of the fresh fruit should be undertaken to those markets who specifically request it and are prepared to pay the price.

#### **(ii) Limited Window of Opportunity**

The Malian season for mangoes of the exportable varieties (Amelie, Kent, Keitt) runs from March to June. The window of opportunity for exports of Malian mangoes is short - i.e. from March to April. As from May, Mali faces stiff competition on the European market from over ten supplying countries and prices begin to fall. Malian exporters should limit exports of mangoes to March/April, when higher prices can be obtained.

#### **(iii) Lack of Competitiveness by Airfreight**

Mangoes of the exportable varieties should be sent increasingly by sea so that Malian mangoes can compete against those of other supplying countries. This becomes a necessity if exporters intend to ship after April. Sea shipments of mangoes will free up valuable airspace for exports of other high value alternative products. Investigations into sea shipments of mangoes from around the Sikasso area should be undertaken so as to assist exporters in shipping good quality mangoes over a longer period (March-June) on the international market.

#### **(iv) Production of More Resistant Varieties**

A census on the population of the different varieties of mango trees throughout the country should be undertaken. This will allow for better planning and management of resources for both the fresh and processed fruit. Plantings of varieties in demand on the export market which have a higher resistance to disease and are more appropriate for seafreight should be undertaken (e.g. Kent).

(v) Absence of Research on Mangoes

Discussions with IER revealed the absence of a continuous program of research on mangoes. Citrus fruits were the priority fruit for research. Continuous research on mangoes needs to be undertaken so as to prevent disease (e.g. Anthracnose), pests (e.g. fruit fly) and high postharvest losses. Mangoes from Sikasso are reported to be susceptible to Anthracnose disease. However, no research has been carried out on this.

Researchers at IER reported that mangoes are available twelve months of the year throughout different parts of the country. Research should be carried out on early and late varieties so as to take advantage of windows of opportunity and the ensuing higher prices. This could offer new opportunities for exports and extend the mango season from the present 3-4 months (March to June). For example, Keitt, a late variety is available on the markets until September. There is less competition for mangoes during this period on the European market. Opportunities for markets of this variety if available in exportable volumes should be investigated. Research results should be disseminated to producers and exporters.

(vi) Inadequate Training

As most mango trees are not commercial plantations, smallholder farmers need to be trained on all aspects of correctly maintaining trees so that the best quality fruits can be obtained. This should include all aspects of production, pre and post harvest treatments, and quality requirements for the export market.

(vii) Concentration of Mango Exports in the Bamako Area

With the exception of the co-operative Mali Yriden, the majority of exporters obtain mangoes from the Bamako area. Mangoes trucked from the Bamako area and sent by sea freight are reported to be unprofitable. Exporters should take advantage of the opportunities offered by sea freight by procuring mangoes from Sikasso. The shorter distance to the port of Abidjan should make it more attractive to ship by sea freight. It is reported that one large Ivorian firm buys mangoes from Sikasso and re-exports to Europe as Ivorian mangoes. Exporters need to be well organized to take advantage of the abundant supplies of mangoes from Sikasso by sea freight.

## **8.2 Fine Beans**

Fine beans face similar problems to those mentioned for mangoes and the constraints in Section 6. Specific problems include:

(i) Limited Window of Opportunity

Exports of Malian fine beans to the French market are from November to March. This is at a time when there is stiff competition from Kenya, Burkina Faso and Senegal. The window of opportunity for Malian fine beans is from 21st October to the end of November. Lower prices may be obtained if shipments are made after this period.

(ii) Limited Niche Market

Alternative markets for exporters of fine beans should be investigated. This should be undertaken when quality problems have been overcome and exporters are better organized to enter new markets with specific requirements. The quality problems reported include pale green color and curling of beans.

Pre-packing at source of top and tail fine beans could be one way of adding value and entering new markets (e.g. UK). Investments will be required to carry out pre-packing at source. The product range should be extended to include other complementary products (e.g. baby corn, mangetout peas) so that the investment is economically viable.

## Chapter Two: Malian Products with Export Potential

### 9. Preliminary Selection of Products with Export Potential

This chapter examines a range of products which have been identified as having export potential on selected European and/or regional markets. In Section 9.3, products have been segmented according to specific criteria (e.g. demand, volumes, market prospects, etc.). Furthermore, more detailed profiles of twelve selected products are provided in Section 9.5.

In order to obtain good quality products for the export market, the majority of perishable products identified require investments in cold chain infrastructure (e.g. pre-cooling, cold stores, refrigerated trucks, containers on-site).

#### 9.1 Criteria for the Preliminary Selection of Products

The products selected have been able to meet one or several of the following criteria:

- (i) High volume internationally traded products in which Mali can gain modest market share without causing oversupply problems;
- (ii) High value niche products for which there is increasing demand in selected markets and it is possible to increase production within a fairly short space of time;
- (iii) Products which will be able to increase the incomes of smallholder farmers;
- (iv) Products which will allow growers/exporters to respond quickly to global changes in demand and supply;
- (v) Products which meet the objectives of the USAID programme for SEG.

#### 9.2 Products with Export Potential to Selected European Markets

- (i) Fresh Fruits
  - Mangoes (Sea-freighted - Florida varieties - e.g. Kent)
  - Sweet Melons (e.g. Galia, Charentais)
  - Passion Fruit (Large Hybrid)
  - Papaya Solo
  - Physalis (Cape Goose berries)
  - Berries (e.g. raspberries, strawberries, blueberries, blackberries)
- (ii) Fresh Vegetables/Herbs
  - Green Beans (e.g. Bobby Beans, Fine & Extra Fine)
  - Baby Corn
  - Asparagus
  - Spring Onions
  - Hot Peppers (e.g. Birds Eye Chillies, Scotch Bonnet, Jalapeno)

- Okra
- Baby Vegetables (e.g. broccoli, courgettes)
- Aubergines (eggplant)
- Cherry Tomatoes
- Sweet Peppers
- Mangetout (snow peas)
- Sugar Snap Peas
- Herbs (e.g. garlic, chives, wild rocket, red mustard, basil, coriander)

(iii) Organic Fresh Fruits and Vegetables

- Bananas
- Mangoes
- Sweet Peppers
- Aubergines
- Bobby Beans
- Sweet Corn
- Onions
- Sweet Potatoes
- Fresh Ginger and Garlic
- Round Tomatoes
- Cherry Tomatoes

(iv) Processed Products

Spices

- Whole and Sliced Dried Ginger
- Black Pepper
- Dried Chillies
- Cardamom

Dried Fruits & Vegetables

- Dried mangoes & Other Fruits
- Pulses (e.g. white beans)

Essential Oils

- Bergamot Oil
- Geranium Oil

Cereals & Oilseeds

- Sesame Seeds & Oil
- Fonio

Other Processed Products

- Mango Pulp and other Tropical Fruit Juices
- Papain
- Hibiscus

(v) Other Products

- Shea Nuts/Butter
- Cashew Nuts
- Gum Arabic
- Pois Sucre

### 9.3 Segmentation of Products with Export Potential to Selected European Markets

The products listed in Section 9.2 have been segmented according to a number of criteria. This is in order to prioritize products for further studies.

The criteria used include:

- (i) Demand/competition in the market;
- (ii) Growth prospects;
- (iii) Volumes;
- (iv) Existing production/new product development;
- (v) Length of time to bring to market ;
- (vi) Level of sophistication of cold chain required to bring products to market; and
- (vii) Technical know-how/difficulty in production.

The majority of fresh produce selected are classified as "Minor Exotic Fruits and Vegetables". Volumes should therefore be considered in relative terms.

Figures 1.1, 1.2 and 1.3, show the different categories of products according to the criteria specified above. There may be some overlap in some categories. For example, black pepper is traded in large volumes on the international market. It is, however, a medium-long term crop which takes around seven years to reach peak production.

**Figure 1.1: Good Demand/Growth Markets - Volume Products - Short Term**

<b>Fruits</b>	<b>Vegetables</b>	<b>Spices</b>	<b>Other Processed Products</b>
Mangoes (Sea-freighted - Florida varieties - e.g. Kent)	Green Beans (e.g. Bobby Beans, Fine & Extra Fine)	Dried Chillies* (including Paprika)	Mango Pulp & Other Tropical Fruit Juices
Sweet Melons (e.g. Galia, Charentais)*	Mangetout & Sugar Snap Peas*	Dried Ginger (Whole & Sliced)*	Natural Gum Arabic*
Papaya Solo	Baby Corn*		Cashew Nuts*
Passion Fruit* (Large Hybrid)		Aniseed	Sesame Seeds & Oil*
			Shea Nuts
			Pulses

*\* product profile included in this report*

The majority of products in this category already exist or can be grown within a relatively short period of time. There is demand and/or growth in these product/markets. Provided Mali can supply a high quality product at a competitive price, there should be opportunities to gain market share from existing suppliers.

**Figure 1.2: Niche Products - Modest Volumes - Short/Medium Term**

<b>Fruits</b>	<b>Vegetables</b>	<b>Spices</b>	<b>Other Processed Products</b>
Physalis	Okra*	Selected Organic Products	Mango and Other Dried fruits (including organic)
Selected Organic Products*	Sweet Peppers		Papain*
	Aubergines		Hibiscus
	Hot Peppers (e.g. Birds Eye)		Fonio
	Cherry Tomato		Pois Sucre
	Selected Organic Products*		

*\* product profile included in this report*

The majority of products are for niche markets (excluding sweet peppers and aubergines). The volumes required are relatively smaller than for products in Figure 1.1. For fresh produce, there are specific windows of opportunity in some markets, particularly during the off-season. For example, okra (November & December) and sweet peppers (Switzerland). There may be stiff competition from European suppliers at certain times of the year making Malian products uncompetitive (e.g. sweet peppers, aubergines, cherry tomatoes). These products are therefore only to be shipped upon firm orders from importers. Some of the products in this group are currently exported in small volumes (e.g. fonio, pois sucre) have been exported in the past (e.g. cherry tomatoes, Birds' Eye chillies) or production is currently being expanded for exports (e.g. hibiscus). Others (e.g. organic products and papain) will require new product development.

**Figure 1.3: Growth Markets - Medium/Long Term**

<b>Fruits/Other</b>	<b>Vegetables</b>	<b>Spices</b>	<b>Other Processed Products</b>
Berries (e.g. Raspberries, Blackberries, Blueberries)	Asparagus	Black Pepper	Frozen Fruit Slices
Figs	Fresh Herbs (e.g. coriander, wild rocket, mustard seed, basil)	Cinnamon (High Grade)	Essential Oils (e.g. Bergamot Oil, Geranium Oil)

**Figure 1.3: Growth Markets - Medium/Long Term**

<b>Fruits/Other</b>	<b>Vegetables</b>	<b>Spices</b>	<b>Other Processed Products</b>
Pomegranate	Baby Vegetables	Cardamom	
Fresh Cut Flowers & Foliage	Spring Onions		

*\* product profile included in this report*

The products shown in Figure 1.3 require a sophisticated cold chain, are capital intensive (e.g. cut flowers, berries, baby vegetables, frozen fruit slices), require specialist technical know-how or can only be developed in the medium-long term. They do not match the current stage of development of the agribusiness sector in Mali.

#### **9.4 Products with Export Potential on the Sub-Regional Market**

Products with potential for exports in the sub-region are described below. Some of these products may already be exported in limited volumes to the target markets. There is, however, potential for further growth and expansion. The window of opportunity for Malian products in the target market including varieties required is given, when this is available.

- Dried Onions
- Tomato Paste (various)
- Hibiscus (Senegal, Gambia)
- Rice (Guinea, Senegal, Cote d'Ivoire)
- Potatoes (Cote d'Ivoire)
- Mangoes (Cote d'Ivoire - January to June). Varieties - Kent, Keitt and Brooks
- Tomatoes (Cote d'Ivoire). Variety - Roma
- Cabbage - (Cote d'Ivoire - November to March)
- Oranges (Cote d'Ivoire - January to April)
- Pepper (Cote d'Ivoire - All year round). Variety - Yellow wonder
- Other vegetables - Green beans, radish, beetroot, onion bulbs and carrots (Cote d'Ivoire)

#### **9.5 Product Profiles**

This section provides profiles of twelve products. The following products have been covered:

##### Fresh Fruits and Vegetables

- Papaya Solo
- Sweet Melons
- Passion Fruit
- Okra
- Mangetout Peas
- Baby Corn
- Organic Products

### Processed Products

- Cashew Nuts
- Natural Gum Arabic
- Papain
- Sesame Seed and Oil
- Dried Chillies

These profiles have followed a standard layout. These include:

- Product Background
- Supply
- Leading Exporters
- Regional Competition
- Window of Opportunity (For Fresh Produce only)
- Demand
- International Prices
- Farmgate Prices
- Retail Prices
- Current Production
- Harvest
- Market Prospects
- Other Comments
- Additional Information

## Papaya

<b>Product:</b>	The most popular variety in Europe is the small Solo type with individual fruit weighing between 350g-450g.
<b>Supply:</b>	The supply of papaya to the European Union has increased from 8,183 tons in 1993 to 9,712 tons in 1997, representing growth of 19 percent. Brazil was the main supplier, accounting for around 60 percent of imports in 1997. Jamaica and Ghana had market shares of around 15 percent and 14 percent respectively. Ghana has in recent years made inroads in the European market, with its well flavoured fruit. Belize, a recent new entrant has aroused buyer's interest, but volumes available are not yet significant. There are over ten countries supplying the market at various times of the year.
<b>Leading Exporters:</b>	Brazil, Jamaica, Ghana
<b>Regional Competition:</b>	Ghana, Ivory Coast, South Africa, Burundi
<b>Window of Opportunity:</b>	None. The market is supplied all year round. There are however periodic shortages for well-flavored fruit from February to August.
<b>Demand:</b>	The UK is the largest and fastest growing market with a market share of around 35 percent (3,361 tons) in 1997, followed by Germany (1,322 tons) and the Netherlands (1,770 tons). There are significant re-exports from the Netherlands. The market prefers a deep red/yellow flesh with a good flavor such as that from Jamaica and Ghana, or the best quality brands from Brazil.
<b>International Prices (Average 1997-98):</b>	<p>Shipments by sea freight from Brazil, Jamaica and Costa Rica lowers the price of papaya. There is ,however, an all year round demand for airfreighted papaya because of the inconsistency in quality associated with sea freight. The best brands sent by airfreight consistently command the best prices in the market.</p> <p>Wholesale prices in the UK have ranged between US\$1.50-US\$4.75/kg. Prices tend to remain within these ranges, reaching their peak in the winter. Brazil is the main supplier throughout most of the year, with Israel and Costa Rica supplying the majority of papayas in the winter.</p>
<b>Farmgate Prices:</b>	N/A
<b>Retail Prices:</b>	N/A
<b>Current Production</b>	N/A. Solo papaya is grown in limited quantities.
<b>Harvest:</b>	August to May

**Market Prospects:** There is a growing demand for papaya in selected European markets. Potential for further growth exists, particularly in the UK and German markets. Growth has been hindered because of the lack of a consistently good quality product with a good flavour from a reliable source at a reasonable price. It will remain a minor product until post harvest problems are overcome and a positive step is taken to promote the product creatively. Jamaica has increasingly been concentrating exports to the US, providing opportunities for other supplying countries with a well-flavoured fruit. Brazil has been increasing its exports to the EU.

**Other Comments:** Papaya has some innate disadvantages which make it a difficult crop for export. It is sensitive to environmental conditions, particularly water logging, drought and wind damage.

The principal constraint on its development as an internationally traded product is its post harvest characteristics. It can be harvested when almost ripe and airfreighted which means it becomes an expensive fruit which in turn restricts demand. The other alternative is for it be harvested at the onset of ripening and sea freighted which gives a shelf life of around two weeks. However, on arrival it often fails to develop its delicate flavour.

There are good opportunities for Mali in the UK and German market, if it is able to ship a competitively priced, good quality, well flavoured fruit with a deep red/yellow flesh from February to August. There is keen interest from buyers during this period.

**Additional  
Information:**

**EU Imports - Papaya - 1993-1997**

(Q = Metric Tons, V = ECU millions)

Country	1993		1995		1997	
	Q	V	Q	V	Q	V
<b>TOTAL EU</b>	8,183	12.8	8,304	12.9	9,712	17.8
<b>Netherlands</b>	2,691	3.2	3,076	3.5	1,770	2.9
<b>UK</b>	2,000	3.3	2,103	3.0	3,361	6.0
<b>Germany</b>	1,781	3.0	1,422	3.0	1,322	2.8
<b>France</b>	881	1.8	654	1.5	932	2.0
<b>Belgium/Lux</b>	210	0.2	164	0.3	807	0.7
<b>Italy</b>	75	0.2	96	0.2	157	0.4
<b>Sub-Total</b>	7,638	11.7	7,515	11.5	8,349	14.8
<b>Other</b>	545	1.1	789	1.4	1,363	3.0

Source: EUROSTAT

## Sweet Melons

<b>Product:</b>	There are five main types of melons marketed: Yellow Honeydew, Piel de Sapo (green skinned), Galia, Charentais and Cantaloupe. Yellow Honeydew and Piel de Sapo are low priced, long shelf life types. Galia melons and Charentais (the net types) are high value and offer the best prospects to Malian exporters. Cantaloupe are sea-freighted and are lower value. Watermelons are excluded because they are a low value product mainly supplied from within the EU.
<b>Supply:</b>	<p>EU import statistics on sweet melons are aggregated. The most important suppliers to the EU of sweet melons in 1997 were Brazil (36,329 tons), Costa Rica (25,208 tons), Israel (15,328 tons), Morocco (11,770 tons), Turkey (5,318 tons) and Honduras (4,307 tons).</p> <p>Spain is the dominant supplier of Galia. Its season extends from May to October. France and Turkey are other important suppliers during the summer months of Charentais and Galia respectively. Israel, which grows a high quality Galia, targets exports from September to early December. Other important suppliers of Galia during the winter months include Egypt and Brazil</p>
<b>Leading Exporters:</b>	Spain, France, Turkey, Brazil, Costa Rica
<b>Regional Competition:</b>	Egypt, Senegal, Gambia, Ethiopia, Morocco, Tunisia, Zambia, South Africa, Kenya
<b>Window of Opportunity:</b>	There is currently a shortfall in the supply of high quality Galia melons from the months of December to April. A window of opportunity exists particularly in December and January.
<b>Demand:</b>	The market size for sweet melons has shown strong growth from 88,083 tons valued at ECU 74.4 million in 1993 to 109,761 tons valued at ECU 89.6 million in 1997. The largest market is the UK followed by Germany and the Netherlands. Demand for Charentais is limited and mainly required on the French market.
<b>International Prices: (Average - 1997-98)</b>	UK wholesale prices for Galia melons have ranged between US\$0.70-US\$5.00/kg with the major suppliers being Israel and South Africa. Prices are lowest during the summer months when domestic EU production is available (primarily from Spain and France).
<b>Farmgate Prices:</b>	N/A
<b>Retail Prices:</b>	N/A
<b>Current Production</b>	N/A.

<b>Harvest:</b>	N/A
<b>Market Prospects:</b>	<p>There is keen interest from buyers for new sources of supply, particularly for Galia, and to a lesser extent for Charentais from December to April. Sea-freighted Cantaloupe melons from Central America are currently meeting the winter demand for Galia melons.</p> <p>With its dry winter and more attractive air-freight rates, excellent opportunities exist for Mali to develop a good export market, particularly of Galia, during the December to April market window. This is provided Israeli standards of quality and service can be met.</p>
<b>Other Comments:</b>	<p>Buyers in the UK recommend that the price of Galia should not exceed £6.00/5Kg. This is because it becomes difficult to sell to the supermarkets above this price. Sea-freighted Galia melons would make Mali more competitive in the medium-long term.</p> <p>Investments would be needed in drip irrigation systems and agronomic skills.</p>
<b>Additional Information:</b>	<p>It was reported by IER that Galia melons are grown on a small scale by individuals in Mali.</p>

## Passion Fruit

<b>Product:</b>	The small standard purple passion fruit ( <i>Passiflora edulis</i> ) is widely available on the EU market. Passion fruit has a refreshing, though somewhat sour taste, and is the most aromatic of fruits. It is mainly used in fruit salads and because of its convenience (easy to scoop) makes a good, healthy snack. A new hybrid (twice the size of the traditional purple fruit) with a brighter pink-purple shell colour, good shelf life and flavour has recently generated market interest.
<b>Supply:</b>	The leading suppliers to the EU market are Zimbabwe (668 tons) and Kenya (557 tons), accounting for almost 80 percent of exports in 1997. Both countries supply the EU market all year round. Uganda, a relatively new entrant and minor exporter (30 tons in 1997), has been at the forefront of recent developments of a novel large hybrid passion fruit (Kawanda type).
<b>Leading Exporters:</b>	Kenya, Zimbabwe, Burundi, South Africa, Colombia, Australia
<b>Regional Competition:</b>	Kenya, Zimbabwe, Zambia, Uganda, South Africa, Burundi, Nigeria, Gambia
<b>Window of Opportunity:</b>	The market is supplied all year round and there are no visible gaps in supply. Imports are highest in November and December, during the period leading up to Christmas.
<b>Demand:</b>	<p>Passion fruit is a minor exotic fruit, with relatively limited volumes imported in the EU. As EU import statistics are aggregated, it is difficult to estimate the market size. Annual imports to continental Europe are estimated at around 1,500 to 2,000 tons, whilst that for the UK is around 300 to 400 tons. In CIF value terms, these markets are therefore estimated at around US\$8 million and US\$ 1.2-1.6 million, respectively.</p> <p>Demand for passion fruit in the EU in 1997 was estimated at around 1,600 tons. The Netherlands was the largest market (801 tons), followed by France (228 tons), UK (226 tons), Germany (171 tons) and Belgium/Luxembourg (156 tons). There are significant re-exports from the Netherlands to other EU markets.</p>
<b>International Prices (Average 1997-98):</b>	Typical wholesale prices for airfreighted fruit were on average around US\$3.75 - US\$4.50/Kg (cif) in selected EU markets (France, Germany, UK and the Netherlands).
<b>Farmgate Prices:</b>	N/A
<b>Retail Prices:</b>	N/A
<b>Current Production:</b>	None

**Harvest:** N/A

**Market Prospects:** Demand for passion fruit in EU markets is reported to be growing. The large hybrid purple passion fruit offers the best potential for growth, particularly in the UK, where there is interest from the supermarkets.

The trends in convenience, healthy eating and snacking mean that this fruit should have a bright future. This is provided the post harvest problems can be overcome (e.g. wrinkling of the skin of the fruit). Continuity of supply and a consistently good quality product at a reasonable price from a few reliable sources will help the long term development of the fruit. This will give confidence to supermarket buyers to commit to making investments in market development. Regular promotions and consumer education will help to increase demand.

**Other Comments:** There was keen interest from buyers in the EU for the large hybrid type. Passion fruit is a product which meets most of the criteria for Sustainable Economic Growth in Mali (high value, attractive prices, can be grown by outgrowers as well as commercial plantations, relatively low investment required etc).

Provided Mali is able to obtain the seeds, there are opportunities to gain market share from existing suppliers. Uganda and some other countries are, however, at a more advanced stage of research and development. Any long-term competitive advantage will be gained from providing a good quality product and service. Mali's lower airfreight rates should make it a more competitive supplier compared to East African countries. Strong Research and Development and agronomic/post harvest management skills will be required for the successful development of this product.

**Additional Information:**

The Kawanda hybrid is reported to be more suitable for the lowland warm humid areas, which could be suitable for Mali.

**EU Imports - Passion Fruit - 1997**

(Q = Metric Tons)

Country	1997
	Q
TOTAL EU	1,592
Netherlands	801
France	228
UK	226
Belgium/Luxembourg	156
Germany	171
Italy	10

*Source: EUROSTAT*

## Okra

<b>Product:</b>	Okra (Lady Finger) is considered an 'Asian' vegetable in the EU markets. It is mainly consumed by the 'ethnic' communities (Caribbean, African and Asian).
<b>Supply:</b>	EU import statistics on okra are aggregated. The main suppliers to the EU market are Mexico and Kenya. Mexico is on the market from October to March, whilst Kenya supplies all year round. The market is well supplied for most of the year by many different supplying countries. Around 20 different countries supply the UK market. France is mainly supplied by Mexico, Mauritania and Senegal.
<b>Leading Exporters:</b>	Mexico, Kenya
<b>Regional Competition:</b>	Uganda, Gambia, Senegal, Nigeria, Zambia, Zimbabwe, Ghana, Egypt
<b>Window of Opportunity:</b>	There is a shortage of okra on the market during the months of November and December.
<b>Demand:</b>	Demand for okra is difficult to estimate because imports are not reported separately. The UK is the largest market, followed by the Netherlands, France and Germany.
<b>International Prices (Average - 1997-98):</b>	Prices can be relatively volatile and fluctuate according to supply and demand. There are also significant price differences for product according to the country of origin. UK wholesale prices range from US\$2.00-US\$4.00/kg, with prices in the higher range during the winter months.
<b>Farmgate Prices:</b>	N/A
<b>Retail Prices:</b>	N/A
<b>Current Production</b>	N/A
<b>Harvest:</b>	November to August
<b>Market Prospects:</b>	Okra is considered by supermarket buyers, particularly in the UK, as the 'Asian' vegetable with the most potential for crossover into the mainstream market. Growth and market development have been hindered because of the lack of continuity of supply and consistent quality from any one supplying country.
<b>Other Comments:</b>	Okra is a product that grows well in Mali and should be added to the existing range of exports. Mali should take advantage of the higher

prices during the months of November and December. The market can be highly competitive during other times of the year, leading to lower prices. Price negotiations and contracts with importers who serve the supermarkets should be undertaken, particularly for the period excluding November/December. Importer's should specify quantities at a minimum guaranteed price over a specific period. In this way, exporters are assured a guaranteed market and do not risk losing money on the wholesale markets. A good quality product, together with investments in appropriate handling facilities and adequate cold chain infrastructure, will be required to obtain contracts from importers serving supermarkets and gain market share from existing suppliers .

**Additional  
Information:**

The variety currently grown in Mali is not suitable for export. Exporters should check the varieties required in each market prior to commencement of production.

### **Mangetout (Snow Peas)**

<b>Product:</b>	Major cultivar types are Oregon Sugar Pod, Dwarf de Grace of the 'Pisum sativum' species. Other names for mangetout are snow pea or sugar pea. Mangetout peas, and more recently Sugar Snap peas, have become increasingly popular in selected EU markets. The trends in convenience and the increasing popularity of ethnic cuisine amongst consumers have fuelled demand. These vegetables are easy to prepare and rapid to cook, as well as having a role in salads and stir fries.
<b>Supply:</b>	<p>The market is supplied all year round by a few countries. The main suppliers to the EU in 1997 were Kenya (3,554 tons), Zimbabwe (2,766 tons), Guatemala (2,293 tons), Zambia (1,050 tons), Morocco (325 tons) and Egypt (345 tons). Kenya has significantly increased market share, from 830 tons in 1993 to 3,554 tons in 1997, representing growth of 328 percent. Zambia, a relatively new entrant, has also increased imports from 574 tons in 1993 valued at ECU 1.4 million to 1,050 tons valued at ECU 3.1 million in 1997. This represents growth of around 83 percent in volume.</p> <p>Exports from Kenya, Zambia, Zimbabwe and Guatemala are mainly destined for the UK market (7,318 tons), accounting for 67 percent market share. The French market is mainly supplied by Morocco (304 tons), with a market share of around 94 percent. Morocco's exports have declined significantly, from 1,555 tons in 1993 to 325 tons in 1997, representing a fall of around 378 percent.</p>
<b>Leading Exporters:</b>	Spain, Kenya, Guatemala, Zimbabwe, Zambia
<b>Regional Competition:</b>	Zimbabwe, Zambia, Nigeria, South Africa, Morocco, Egypt
<b>Window of Opportunity:</b>	The market is currently not under supplied and there are no visible gaps in supply.
<b>Demand:</b>	<p>Imports of mangetout to the EU have shown strong growth, rising from 8,092 tons and valued at ECU 17.6 million in 1993 to 10,982 tons and valued at ECU 32.4 million in 1997. This represents growth of 36 percent in volume and 84 percent in value.</p> <p>The UK, was the largest market (7,628 tons), with a market share of almost 70 percent in 1997. The Netherlands (1,863 tons), France (546 tons) and Germany (544 tons) are the other main markets. Germany and the UK were the fastest growing markets from 1993-1997. The German market exhibited strong growth, albeit from a low base, with imports rising from 229 tons valued at ECU 0.5 million in 1993 to 544 tons valued at ECU 1.9 million in 1997. This represents an increase of 142</p>

percent in volume and 155 percent in value. Imports to the UK increased from 4,367 tons in 1993 valued at ECU 10.9 million to 7,628 tons valued at 22.5 million in 1997. This represents growth of 75 percent in volume and 106 percent in value. Imports to France have fallen significantly from 1,565 tons in 1993 to 546 tons in 1997.

**International Prices**

**(Average 1997-1998):** Over the past year, average UK wholesale prices have ranged between US\$3.40/kg-US\$9.00/kg. Price rises and falls are unpredictable, except for during the summer months when prices fall due to the availability of alternative homegrown vegetables at prices which make it difficult for imports to compete.

**Farmgate Prices:** N/A

**Retail Prices:** N/A

**Current Production** None

**Harvest:** N/A

**Market Prospects:** The EU market for mangetout is expected to continue showing steady growth, fuelled by the demand for convenience, healthy eating and the popularity of ethnic cuisine. The markets offering the best potential for growth, are Germany and the UK. Mangetout is currently a niche product mainly purchased by the more well off consumer. Demand could increase significantly, if prices were lower in the supermarket trade. The catering sector also offers good growth prospects. In the UK, the Netherlands, and Belgium growth is expected in the cheaper Sugar Snap types.

**Other Comments:** The UK, which is the largest market, requires top and tail for both loose and pre-packed mangetout. Mangetout and Sugar Snaps are complementary to Mali's existing range of products - fine and extra fine beans. The market is not under supplied and there are well established suppliers. However, with its lower air freight rates, Mali should be able to compete against well established suppliers from E Africa and Guatemala. The best time for Mali to supply will be during the winter months.

To compete, Mali will need to offer a good quality product for export. To achieve this, investments in pre-packing at source (which will add value), together with an adequate cold chain infrastructure will be required. These investments are currently required for the export of quality beans to existing and alternative markets. The extended range and increased volumes will help to make the investments economically viable.

With a reputation on some markets for the quality of its fine beans, Malian exporters should be able to win the confidence of buyers for an extended range of products to include Mangetout and Sugar Snaps.

**Additional Information:**

**EU Imports - Mangetout Peas - 1993-1997**

(Q = Metric Tons, V = ECU millions)

Country	1993		1995		1997	
	Q	V	Q	V	Q	V
<b>TOTAL EU</b>	8,092	17.6	9,366	20.0	10,982	32.4
<b>Netherlands</b>	1,786	3.7	1,610	3.9	1,863	5.5
<b>UK</b>	4,367	10.9	6,144	13.1	7,628	22.5
<b>Germany</b>	229	0.5	468	1.1	544	1.3
<b>France</b>	1,565	2.2	775	1.2	546	1.3
<b>Belgium/Lux</b>	118	0.2	93	0.2	131	0.4
<b>Sub-Total</b>	8,065	17.5	9,090	19.5	10,712	31.6
<b>Other</b>	27	0.1	276	0.5	270	0.8

*Source: EUROSTAT*

## **Fresh Baby Corn**

<b>Product:</b>	The main varieties of Baby Corn ( <i>Zea mays</i> L.) are of the Supersweet type. Used primarily in Asian cuisine, it is a niche product which has become increasingly popular with consumers, particularly, in the UK. Its versatility and ease of preparation make it particularly appealing.
<b>Supply:</b>	Thailand is the leading supplier to the EU, with a market share of around 80 percent. Zimbabwe and Zambia have in recent years been steadily eroding Thailand's market share.
<b>Leading Exporters:</b>	Thailand, Zimbabwe, Sri Lanka
<b>Regional Competition:</b>	Zambia, Zimbabwe, South Africa, Kenya, Nigeria, Uganda (trials)
<b>Window of Opportunity:</b>	The market is supplied all year round. There are no visible gaps in supply.
<b>Demand:</b>	EU import statistics on Baby Corn are aggregated with Sweet Corn. It is therefore difficult to estimate demand. The UK market has developed a strong demand for baby corn. It is the largest market in the EU for fresh baby corn.
<b>International Prices:</b>	Prices for loose baby corn are lower than for pre-packed product. Over the past year, UK wholesale prices have ranged between US\$3.00-US\$5.50/kg.
<b>Farmgate Prices:</b>	N/A
<b>Retail Prices:</b>	N/A
<b>Current Production</b>	None
<b>Harvest:</b>	N/A
<b>Market Prospects:</b>	Baby Corn is a niche product and opportunities are currently limited to the UK market. The market is not expected to expand significantly unless a demand is created in Continental Europe. There are, however, opportunities for new supply sources with lower air-freight rates.
<b>Other Comments:</b>	Baby corn is a high value product which is complementary to Mali's existing range of fine and extra beans. Its addition to product lines has boosted the sales of some producers, especially in Africa. The crop offers low returns per hectare, unless value is added by pre-packing at source. Investments in pre-cooling and cold-storage facilities will be required to prevent quality losses after harvest.

## **Organic Products**

Organic importers serving the supermarkets in the UK market were keen to source organic products from Mali. The following describes factors influencing buyer's decision, some of the products in demand, seasons, prices and competition from other supplying countries.

### Purchasing Decisions

There are two main factors which influence buyer's decisions for expansion in the fast growing supermarket trade (in addition to quality and certification). These are:

#### Prices

Organic products should not exceed a premium of around 30 percent over conventional produce. Some of the leading supermarkets in the UK are prepared to switch to selected organics, provided prices are the same as conventional produce and there is continuity of supply. (For some organic produce, this is possible because yields can be the same or even higher than for conventional).

#### Supply Requirements

A minimum of 6 weeks supply of on average 1 tonne per week (depending on the product) from a supplying country is required by importers to obtain listings in the supermarkets. This is so that the supermarkets are able to make the maximum usage of shelf space and turnover per square foot.

The products below and shown in Figure 1.1 were of interest to UK Buyers supplying the wholesale trade and supermarkets. The majority of products selected are mainstream products (with the exception of mangoes and fresh ginger). Although volumes are small, there is potential for further growth. Growth is currently being hindered because of the shortage of products at specific times of the year and/or irregularity of supply. Importers are unable to meet the demand from supermarkets. Average prices are quoted for the seasons specified. Unless indicated otherwise, all prices are airfreighted.

### Demand for Organic Products

#### Fresh Produce - UK

- Bananas
- Bobby Beans
- Aubergines
- Onions
- Capsicums
- Tomatoes (Round)
- Cherry Tomatoes
- Sweet Potatoes
- Fresh Ginger
- Mangoes

### Organic Spices

The following spices were of interest to buyers in selected EU markets.

- Dried Ginger (sliced)
- Black Pepper
- Dried Paprika
- Dried Chillies
- Pulses

**Figure 1.4: Demand for Off-Season Organic Produce in the UK Market (1998)**

Product	Window of Opportunity	Current Suppliers	Estimated Price Organic (£, C&F)
Bananas	All year round	Colombia, Canary Islands, Dominican Republic	£1/Kg (sea freighted)
Bobby Beans	October to March	France, Italy, Israel, South Africa, Egypt	£1.20/Kg
Aubergines	January-March	UK, France, Italy, Spain, Egypt	£1.50/Kg
	April-December		£1.10/Kg
Onions	February-July	Egypt, Argentina, Israel	£300/tonne
Capsicums	February -July (Red, yellow, orange)	Israel, Egypt, Morocco, UK, Spain, Italy, Netherlands	£1.32-1.35/Kg
	February-July (Green)		£1.00-1.10
	October-January (Green)		£0.94/Kg
Tomatoes (Round)	November-June (47's, 57's, 67's)	Morocco, Spain	£1.00/Kg
Cherry Tomatoes	Same as above	Morocco, Spain	£1.30/Kg
Sweet Potatoes	All year round	Israel	£1.00/Kg (Sea-freighted)
Fresh Ginger	All year round	Israel	£6.00/Kg
		Uganda (trials)	£1.50/Kg (Sea-freighted)
Mangoes	December-April	Israel, South Africa	£1.00/Kg

*Source: Trade Interview, October 1998*

### **Cashew Nuts**

<b>Product:</b>	Cashew Nuts. The main types of imports include raw and semi-processed cashew nuts. These are, in general, further processed (roasted and salted) and re-packaged by the importer. Raw cashew nuts can also be extracted to obtain cashew nut shell liquid.
<b>Supply:</b>	Three countries accounted for 94 percent of imports to the EU in 1997. India was the dominant supplier with a market share of 75 percent, followed by Brazil (15 percent) and Vietnam (4 percent). In addition to direct imports from developing countries, there is significant trade amongst Member States (11,982 tons - 1997), especially when domestic stocks and world market prices are high.
<b>Leading Exporters:</b>	India, Brazil, Vietnam
<b>Regional Competition:</b>	Tanzania, Mozambique, Nigeria, Kenya, Ivory Coast, Burkino Faso, Benin, Ghana
<b>Demand:</b>	<p>The market for cashew nuts is largely dominated by demand for whole white kernels. These are used primarily as snacks, either alone, or in mixed nut blends. Other market segments include food preparation and confectionery which demand whole or partly whole kernels, splits and broken pieces.</p> <p>The EU is the second largest import market for cashew nuts after the United States. Per capita consumption is highest in the Netherlands (around 230g), followed by the UK(75g) and Germany (50g). Imports in 1997 were around 36,184 tons valued at ECU 157 million compared to 15,413 tons in 1990 valued at ECU 55.3 million. This represents growth of around 135 percent in volume and 184 percent in value.</p>
<b>International Prices (Average 1997-98):</b>	<p>Price is determined by the shape and size of the kernel. Grading is done according to international standards, which are based on count, colour, shape and taste. The upper price range is for whole kernels while the lower range is for broken pieces. The following prices are indicative for 1997/98.</p> <p>Indian Spot UK 240s - US\$ 2.63-3.20/lb  Indian Spot UK 320s - US\$ 2.35-2.64/lb  Indian Spot UK 450s - US\$ 2.15-2.40/lb  Indian Large White Pieces - US\$ 1.70-2.10/lb (fob) Rotterdam</p>
<b>Farmgate Prices:</b>	CFA 3000/Kg
<b>Retail Prices:</b>	CFA 675/100g
<b>Current Production:</b>	N/A. No commercial plantations.
<b>Harvest:</b>	N/A

**Market Prospects:** Although growth rates have diminished in recent years, the EU market for cashew nuts has potential for further growth. There are good prospects for future growth in Southern and Eastern Europe. As the market is highly price-responsive, future imports will to a large extent be dependent on world market prices. India, with its large production and high domestic consumption will continue to influence the world market.

Recent crop failures in India and huge domestic demand provide opportunities in the short-term for Malian exporters of raw cashew seeds. Vietnam and Brazil are also countries which import raw cashew seeds for processing for export.

**Other Comments:** There has been increased production in recent years in some West African countries. The current trend, however, is for these countries to process cashew nuts for export. There are plans for increased commercial production in India and Vietnam. Cashew processing can be a lucrative added-value industry for Malian exporters and an important source of foreign exchange. It is, however, capital intensive and commercial production will be required to make it a viable industry.

**Additional Information:** Two companies were identified as processing and trading in cashew nuts. These are Mali Cajou and La Maraichere. Both companies have their products sold in 100g retail packs in supermarkets in Bamako. Only one of these companies has a processing facility. It was reported that Ivorian exporters purchase raw cashew nuts in Mali for re-export.

#### **EU Imports - Cashew Nuts - 1993-1997**

(Q = Metric Tons, V = ECU millions)

Country	1993		1995		1997	
	Q	V	Q	V	Q	V
<b>TOTAL EU</b>	15,413	55.3	35,331	146.0	36,184	159.6
<b>Netherlands</b>	4,086	14.9	17,946	75.7	17,738	79.7
<b>UK</b>	5,106	18.2	6,544	27.0	6,136	28.6
<b>Germany</b>	3,732	14.4	5,362	21.9	4,319	19.0
<b>France</b>	1,212	4.2	1,969	8.1	3,556	13.8
<b>Italy</b>	306	0.6	1,002	3.3	1,533	5.6
<b>Belgium/Lux</b>	353	0.8	202	0.6	290	1.1
<b>Sub-Total</b>	14,795	53.1	33,025	136.6	33,572	147.8
<b>Other</b>	618	2.2	2,306	9.4	2,612	11.8

Source: EUROSTAT

#### **Natural Gum Arabic**

**Product:** 'Acacia Senegal'. Used as a food additive (emulsifier and stabiliser) in a wide range of food applications.

<b>Supply:</b>	Sudan was the most important supplier to the European Union accounting for around 36 percent of imports in 1997. Chad and Nigeria had market shares of around 25 percent and 20 percent respectively. Importers can dictate prices by holding stocks for as long as three to four years. This can lead to a downward pressure on prices. There is significant trade amongst member states (7,888 tons in 1997).
<b>Leading Exporters:</b>	Sudan, Chad, Nigeria
<b>Regional Competition:</b>	Sudan, Chad, Nigeria, Central African Republic, Ethiopia, Eritrea, Senegal, Cameroon, Mauritania, Niger
<b>Demand:</b>	<p>Imports have grown by around 32 percent since 1993, amounting to around 27,000 tons, valued at EU 29.8 million in 1997. Growth has been fuelled by the demand for low fat and natural health foods.</p> <p>France is by far the largest market with a market share of around 58 percent in 1997. It has also been the fastest growing market, with imports rising from around 10,000 tons in 1993 to around 16,000 tons in 1997, representing growth of around 60 percent.</p>
<b>International Prices (Average - 1997-98):</b>	<p>Grading and prices are according to the origin and quality of gums. Sudan commands a premium price on the market.</p> <p>Sudan Kordofan - US\$ 1800-2300/tonne (fob)  Nigeria No. 1 cleaned - US\$ 1600/tonne (cif - main European port)  Nigeria No.2 cleaned - US\$ 800-950/tonne (cif-main European port)</p>
<b>Farmgate Prices:</b>	N/A
<b>Retail Prices:</b>	N/A
<b>Current Production:</b>	N/A. No commercial plantations.
<b>Harvest:</b>	February-March
<b>Market Prospects:</b>	Growth prospects in the EU are good as the market continues to demand low-fat, and natural healthier food additives. The increasing use of food enzymes, on-going research for new applications in the food and pharmaceutical industries, together with a preference by consumers for natural products and a desire for new tastes will continue to ensure that there is a steady demand. The disturbances in Sudan provide opportunities for other supplying countries, particularly for good quality product.

**Other Comments:** There is strict quality control by European importers. Fully equipped laboratories are used on site to control the quality of all incoming and outgoing products. Growth prospects for Mali will be enhanced if commercial production and the latest technology are introduced to ensure a better quality product.

**Additional Information:** Malian imports to the EU were around 502 tons in 1997. Kagnassy et fils is one of the leading exporters.

**EU Imports - Gum Arabic - 1993-1997**

(Q = Metric Tons, V = ECU millions)

Country	1993		1995		1997	
	Q	V	Q	V	Q	V
<b>TOTAL EU</b>	20,722	52.5	23,492	57.8	27,420	29.8
<b>France</b>	10,016	19.9	10,409	21.6	16,007	13.6
<b>UK</b>	4,971	13.3	4,861	13.4	5,188	6.1
<b>Germany</b>	2,910	7.6	4,584	10.9	3,235	4.0
<b>Italy</b>	2,058	9.5	2,172	7.1	702	1.1
<b>Belgium/Lux</b>	178	0.7	381	1.2	660	1.2
<b>Netherlands</b>	38	0.1	71	0.2	144	0.5
<b>Sub-Total</b>	20,171	51.1	22,478	54.4	25,936	26.5
<b>Other</b>	551	1.4	1,014	3.4	1,484	3.3

*Source: EUROSTAT*

## Papain

- Product:** Papain is a peptolytic enzyme obtained from the latex of the green fruit *Carica papaya* (Fam. *caricaceae*). It has many commercial applications in the pharmaceutical, cosmetic and food industries. In the food industry, it is mainly used as a meat tenderiser. Other uses include beer chilling in brewing and as a digestive aid. In the pharmaceutical and cosmetic industries, it is used as a digestive enzyme, contact lens cleanser, in face lift preparations and toothpaste.
- Supply:** East African countries and the Democratic Republic of Congo are the main exporters. Uganda's exports were around 223 tons in 1996, representing a global market share of 25 percent. Papain imports undergo further processing before they are re-exported as the finished product amongst member states or to other countries.
- Leading Exporters:** Uganda, Tanzania, The Democratic Republic of Congo, India, Sri Lanka, Thailand
- Regional Competition:** The Democratic Republic of Congo, Kenya, Tanzania, Uganda, South Africa and Mozambique
- Demand:** The market is estimated to be around 150-200 tons in 1998. The main markets are the UK, Belgium and France. Demand is steady, with some market segments showing growth (yeast extraction), whilst others are in decline (e.g. brewing).
- International Prices:** There are different qualities of papain on the market. Crude papain (lower value) and refined (flake, soluble, spray-dried, sterile), which is of a higher quality. The latter command premium prices.

Prices normally follow a cycle of five to seven years, due almost entirely to production cycles. Prices are inflated due to a poor crop which encourages growers to increase their planting the following year. This leads to a surplus when the new trees come into production and to a decline in prices.

Prices have fallen significantly over the last two years (by approximately 50 percent), but have remained steady over the past year. Prices for crude papain are less stable, whilst that for refined papain is relatively stable. Differences in prices are determined by the level of enzyme activity (TU). The following prices were quoted in March 1998 for the UK and Germany:

Type	Price	Country
60 TU Powder	DM 35/Kg	Germany
70 TU Liquid	£9/Kg	UK

	300 TU Powder DM 120/Kg 700 TU Powder US\$90/Kg	Germany UK
<b>Farmgate Prices:</b>	N/A	
<b>Retail Prices:</b>	N/A	
<b>Current Production:</b>	None	
<b>Harvest:</b>	N/A	
<b>Market Prospects:</b>	The market is expected to show growth. This is mainly because of the increasing demand for natural products and the unique properties and functions of papain. There are as yet no other substitutes which can perform all of its functions. The growth area for papain is perceived to be as an agent for improving the extraction of yeast for use in snack foods.	
<b>Other Comments:</b>	Papain is a high value product and even if exported in small quantities, this should be profitable. There is reported to be a worldwide shortage. The US market, estimated at around 300-400 tons, is an attractive market with strong growth prospects. Exporters should process papain under contract and according to the specification of the importer.	
<b>Additional Information:</b>		

## Sesame Seeds and Oil

<b>Product:</b>	Sesame Seeds ( <i>Sesamum indicum</i> ), whole, broken, crushed, hulled or shelled. Also known as benniseed, gingelly, sim sim and til. In the raw form it is mainly used for toppings in baked goods (e.g. hamburgers, bagels) and the preparation of ethnic dishes (e.g. tahini paste and halvah). The oil is particularly popular in Asian and Middle Eastern cuisines.
<b>Supply:</b>	The main suppliers of sesame seeds to the European market are India, Sudan and Tanzania. Central American countries such as Guatemala, El Salvador and Nicaragua are important suppliers of the higher-value hulled seed to Europe.
<b>Leading Exporters:</b>	China, India, Sudan, Myanmar, Mexico, Guatemala, Venezuela
<b>Regional Competition:</b>	Sudan, Tanzania, Burkina Faso, Ethiopia, Eritrea, Uganda, Nigeria, Senegal, Gambia
<b>Demand:</b>	<p>The European Union was in 1995 the second largest market for sesame seeds (56,529 tons) after Japan (139,566 tons). It is closely followed by the USA (54,122 tons). Imports have been showing strong growth, rising from 46,466 tons valued at US\$53.7 million in 1991 to 56,529 tons valued at US\$70.7 million in 1995. This represents growth of around 18 percent in volume and 32 percent in value. Greece was in 1995 the largest importer of sesame seeds in volume (14,438 tons valued at US\$ 16 million), followed by the Netherlands (12,699 tons valued at US\$13.6 million), Germany (12,362 metric tons valued at US\$ 17.8 million) and the UK (6055 tons valued at US\$ 8.9 million).</p> <p>Imports of sesame oil to the EU have been showing healthy growth, increasing from 1,763 tons, valued at ECU 4 million in 1993 to 2,229 tons, valued at ECU 6 million in 1997. Demand has been fuelled by the trend for healthy eating and ethnic cuisine, particularly in the UK. The UK market in 1997 accounted for 55 percent of imports in volume, followed by Germany (17 percent). Trade in sesame oil amongst member states represented 36 percent (799 tons) in 1997.</p>
<b>International Prices (Average 1997-98):</b>	There are different types and qualities of sesame seeds - white seeds (white to golden colour) and mixed seeds (yellow to dark brown). White hulled/bleached hulled seeds command a premium price and are used primarily in raw form because of their aesthetic value. Mixed seeds are generally crushed into oil. The value of sesame seeds depends on their purity (%), oil content (should exceed 50%), moisture content and free fatty acid. EU importer prices for sesame oil have remained at about US\$8.00/kg over throughout the past year.

#### Sesame Seeds

Guatemala Hulled 99.9% purity - US\$ 1500-2000/tonne (cif Europe)

Nigeria Natural 98% cleaned - US\$ 580-800/tonne (fob Lagos)

Indian Natural - US\$ 0.545/lb; US\$ 0.421/lb (1998)

**Farmgate Prices:** CFA 125/Kg (September 1998)

**Retail Prices:** CFA 300/Kg (Bamako)

**Current Production:** 10,500 tons (estimate - 1993/1996)

**Harvest:** February-April. Planting in August

**Market Prospects:** The market is expected to continue showing growth, particularly because of the increasing demand for health foods and popular ethnic cuisine. The UK offers the best growth prospects for the oil, whilst Southern European countries (e.g. Greece, Turkey, Israel) have potential for further growth.

**Other Comments:** Mali should specialise in growing and processing the higher-value hulled white seed and oil which command higher prices. The hulled white seed is about three times the price of unhulled, mixed seed from African sources.

#### **Additional**

**Information:** Sesame seeds are a good drought resistant crop for Mali.  
Kagnassy et fils is one of the leading exporters of sesame seeds.

#### **EU Imports - Sesame Oil - 1993-1997**

(Q = Metric Tons, V = ECU millions)

Country	1993		1995		1997	
	Q	V	Q	V	Q	V
<b>TOTAL EU</b>	1,763	4.0	2,006	4.8	2,229	6.0
<b>UK</b>	790	1.9	1,070	2.4	1,226	3.3
<b>Germany</b>	509	1.0	456	1.2	381	0.9
<b>Netherlands</b>	187	0.4	158	0.4	157	0.5
<b>France</b>	175	0.5	151	0.5	216	0.8
<b>Italy</b>	4	-	2	-	21	-
<b>Belgium/Lux</b>	65	0.1	93	0.2	88	0.2
<b>Sub-Total</b>	1,730	3.9	1,930	4.7	2,089	5.7
<b>Other</b>	33	0.1	76	0.3	140	0.3

*Source: EUROSTAT*

## **Dried Chillies**

**Product:** Fruits of the genus Capsicum or of the genus Pimenta - dried, whole, crushed or ground. Includes high-pungency chillies such as Birds eye and Cayenne, as well as the milder flavour - Paprika. Food processing and the Food-service sectors are the main industrial users. Chillies are used as a flavouring agent in meats, sauces, corn chips and other processed products. Changing tastes in consumer's eating habits have led to the popularity of 'ethnic' cuisine and spicy foods. This has fuelled the demand for the 'hot' spices.

**Supply:** Dried Chillies (including paprika) are supplied by a large number of countries. Morocco (8,990 tons) was in 1995 the leading supplier, followed by Zimbabwe (5,772 tons) and South Africa (5,304 tons). Hungary and Turkey are the leading suppliers of Paprika, which is mainly used in Northern Europe. Imports are dependent on weather conditions, and the level of stocks held by importers. There is significant trans-shipment of chillies from the main trading centres (Rotterdam, Hamburg and London) to other European markets.

**Leading Exporters:** Morocco, Spain, South Africa, Hungary, Turkey, Zimbabwe,

**Regional Competition:** Morocco, South Africa, Zimbabwe, Malawi, Uganda, Nigeria, Zambia, Benin

**Demand:** Trade statistics do not report separately the different types of chilli products imported into the European Union. It is therefore difficult to estimate demand for individual products. Imports of chillies to the EU in 1995 were 39,485 tons valued at US\$83.8 million. Germany, the largest market, had a market share of 45 percent by value (US\$ 30.4 million) in 1995. The Netherlands and the UK markets were valued at US\$5.9 million and US\$ 5.5 million respectively.

The increasing number of cookery books and TV programmes have played an important role in changing consumers' culinary perceptions in some markets. This has created a demand for new products and retail packs.

**International Prices (Average 97-98):** Prices vary according to the type of spice, its origin, quality, method of drying/cleaning and predictions about the forthcoming harvest. Paprika commands a higher price than high pungency chillies.

Africa birds eye - US\$ 3,300-5,500/Kg  
India S4 - US\$ 1000-2500/tonne

<b>Farmgate Prices:</b>	CFA 1750/Kg (Whole, dried); CFA 5,000/Kg (June-October)
<b>Retail Prices:</b>	N/A
<b>Current Production</b>	N/A
<b>Harvest:</b>	N/A
<b>Market Prospects:</b>	The market is expected to continue showing steady growth, as consumers increasingly demand convenience foods such as ready meals and snacks (e.g. tortilla chips with spices). Furthermore, changing consumer tastes has fuelled the demand for new products. The popularity of ethnic cuisine and spicy foods should help to keep demand buoyant.
<b>Other Comments:</b>	New suppliers, such as Mali, are likely to face stiff competition from existing well established sources of supply. However, producers who are able to supply a high quality product with distinctive characteristics (e.g. flavour, colour and essential oil) compared to that offered by the competition will have better opportunities of gaining market access. Exporters of high pungency chillies are paid a premium for quality product.

Authorities in the EU are increasingly applying strict quality and stringent phyto-sanitary regulations. In order to gain market access, Mali will need to upgrade the quality of its spices through the adoption of better post-harvest handling methods, adequate storage facilities, packaging etc. It is important that quality assurance commences at the farm level and follows throughout the supply chain to the export market. The continuous monitoring of pesticide residues and low microbiological count are critical for success in the export market.

<b>Additional Information:</b>	Importers recommend that dried chillies for exports are grown in uncontaminated soil (i.e. virgin), and, preferably, grown organically. This is in order to avoid the problem of pesticide residues. Importers report opportunities for organic dried chillies, particularly if sold at a reasonable price.
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#### **EU Imports - Dried Chillies - 1995**

(Q = Metric Tons)

Country	1997	
	Q	V
TOTAL EU	39,485	83.4

Source: EUROSTAT

### **Chapter Three: Recommendations**

## 10. Recommendations

The foundations exist for the development of a vibrant and dynamic agribusiness sector focussing on exports in regional and international markets. A wide range of products exist with export potential to regional/European markets. In order to get to the next stage of development the sector needs to be organized and given a stimulus. This will assist in attracting investment and encourage a larger number of medium-large scale commercial enterprises to set up in the formal sector. The weaknesses inherent in the sector are in three main areas. These are production, organizational/institutional and marketing.

The recommendations focus on improvements in the agribusiness sector so that Malian exports are able to compete on regional and/or international markets.

### 10.1 Production/Processing

- Training of Producers/Exporters in improved cultural practices, pre and post harvest treatment, usage of inputs, quality control is recommended. This is so that quality products are produced and shipped for export markets. This should be carried out by the extension services.
- For processed fruits and vegetables, appropriate warehouses should be obtained for storage. This will assist in smoothing out the price fluctuations for out of season crop and act as a buffer for periods of lean production for the domestic and export market.
- Another agro-processing factory for fruits and vegetables (e.g. dried fruits, jam, fruit juice) should be established near a good source of supply (e.g. Sikasso). This will assist in expanding the production base, reduce postharvest losses, and bring competition to the market place.
- Transport companies specialising in fruits and vegetables should be set up for the distribution of products on the local as well as regional markets. This will help to create more professionalism and specialisation in the sub-sector.

### 10.2 Organizational/Institutional

- A range of business services to exporters such as technical advice, marketing information, and secretarial services (e.g. faxes, telephone, translation) should assist exporters in operating more efficiently and present a more professional image on export markets.
- Market information provided (e.g. prices) should be up-to-date to enable exporters/producers to negotiate the best prices possible and make informed decisions.
- A census of all enterprises in the sector should be undertaken. This should include type of activity, profession, turnover, number of employees etc. This will allow for better planning, control and distribution of resources in terms of export development.
- Shipment inspections should be undertaken by an independent company in selected European markets to verify claims before deductions are made by importers. This will give better control to exporters in export markets and provide valuable feedback on quality issues.
- Extension services need to be strengthened so as to provide support and training to the multitude of smallholder farmers in rural areas.

- A strong Research & Development Faculty will assist in improving quality through the prevention of disease. The introduction of new and more resistant /early and late varieties (e.g. mangoes) will enable Malian exporters to maintain market share and create new opportunities. This should be in accordance with the demand in each export market.

Research on existing and/alternative products needs to be continuous and should respond to the needs of the private sector. Adequate funding should be provided so that research programmes are not terminated or cut short.

- Exporters currently have no control over production and supply of products for the export market. They should be encouraged to invest in their own farms and to grow some products in addition to sub-contracting from outgrowers. This will assist exporters in being able to meet delivery deadlines and make more accurate forecasts for shipments.
- The establishment of uniform quality/hygiene standards across the agribusiness sector will help to raise quality standards, ensure that products meet stringent market requirements and improve the overall image of Malian products on export markets. Quality control should be enforced by an independent company.
- Investments should be made in the cool chain infrastructure (e.g. pre-cooling, cold stores, refrigerated trucks) to ensure quality products for the export market.

### **10.3 Marketing**

- A co-ordinated national strategy regarding the development of exports on regional and international markets is recommended. The strategic plan should include marketing objectives on products, target markets, market share/sales in selected markets and expected results. It should also include a programme of activities such as the number and type of trade fairs to attend in a given year, market contact visits and promotional material such as leaflets, catalogues and PR.
- Such a strategy should emanate from the co-ordination of export development programmes and activities of NGO's, Trade Associations, donors, regional, international and quasi-parastatal agencies operating in Mali. Moreover, it is recommended that the functions, role, and activities of Trade Associations should be examined. This is to ensure that roles are clearly defined, efforts are not being duplicated and that resources are channelled efficiently to those areas requiring assistance.

Trade Associations, new to the private sector, should be provided with Technical Assistance. This should be in the area of training (e.g. management techniques).

- An umbrella organization should be set up responsible for co-ordinating and promoting Malian products on international markets. Funding for such an organization should be secured. This could come from a small levy on exports/imports and other sources of fund (e.g. donor agencies). Technical assistance may be required for the setting up and management of such an organization.

On the micro-level, producers/exporters should have a co-ordinated programme of exports in selected markets. A wider range of products should be offered to importers over a longer season so that Malian exporters have a continuous presence on the market. Furthermore, for products which have good demand in export markets, the season should be extended (outside the peak season) so that Malian exporters can take full advantage of the opportunities (e.g. early and late varieties of sea-freighted mangoes).

- Alternative markets should be found for mangoes and fine beans and where possible create value added. For both products, quantities available for export including varieties and sizes should be estimated before importers in new markets are approached.
- Production of selected organic products for export to the EU market should be examined. A pilot should be undertaken with selected growers/exporters. The support of an existing organization in Mali which already assists farmers with growing products organically and has international links should be enlisted (e.g. GRAT - see Appendix).

Products selected should fulfill several criteria so that the operation is commercially viable. These include, for example, the existence of a ready export market for conventional as well as organically grown produce, organic fresh produce for which there is a demand also for the processed product and products for which there is a demand on the domestic, regional and export markets.

- Export Market Development should be carried out on a continuous basis with selected importers/partners in export markets. This should be co-ordinated with the activities outlined in the work plan.

In the short term, export development should focus on finding alternative markets for exporters of fine beans and mangoes. The quality problems with fine beans should be investigated. Importers in alternative markets should not be approached until exporters are confident of being able to supply a quality product.

During the forthcoming fine bean season (November to January), exports to existing importers should be monitored and contact established with importers.

## **Appendix 1: List of Persons Met**

M. Souleymane Traore  
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M. Moctar Sow  
Directeur  
APEP (Agence pour la Promotion de l'entreprise Privée)  
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Mme Mariko Fadima Siby  
Directrice  
UCODAL (Unité de Transformation et de Conditionnement de Denrées Alimentaires)  
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Mme Aissata Toure  
Directrice  
Multichem  
BP 1513 Bamako  
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M. Yves Lecomte  
Conseiller Développement Rural  
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BP 115  
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Ahmadou L. Camara  
USAID

Gaoussou A Traore  
USAID

M. Cheick Drame  
USAID

M. Bino Teme (Directeur Scientifique)  
M. Oumarou Samassekou (Comptable/Directeur de Ressources Humaines)  
IER

Mme Cisse Oumar  
Chef de Laboratoire Alimentaire  
IER (Sotuba)  
Tel: 24.60.08

M. Drame Djibril  
Food Technologist (Cereals)

IER (Sotuba)

M. Harouna Yossi  
Co-ordonateur National Projet Recherche sur L'Amelioration et la Gestion  
de la Jachere en Afrique de l'Ouest  
IER  
Tel:24.64.28

Mme Haby Sanou  
Genetic Engineering  
IER

M Saidou Ouatta ra  
(Forestry Products)  
IER

Prof Mamadou Koumare  
Pharmacie Falley  
Tel: 21.77.47

M. Monsou Keita  
SODOMA (Manufacturer of beauty products, detergents, and buyer of shea butter)  
Bamako

M. Youssouf Bagoyo/M Ismael Coulibali  
UNCPM (Union Nationale des Cooperatives de Planteurs et Maraicheres du Mali)  
BP 2483  
Bamako  
Tel: 22.81.37

M Mahmadou Kagnassi (Exporter Sesame Seeds, Gum Arabic, Shea Butter and Ground Nuts)  
Kagnassy et Fils  
Zone Industrielle, BP 349  
Tel: 22.50.55

Mme Bocoum Nana Mourkerou Keita  
La Maraichere  
Quinzambou, Face Toyota  
Tel: 21.11.86

M. Yakouba Tangara/M Youssouf Sanogo (Organic Production)  
GRAT (Groupe des Recherches D'Application Technique)  
Bamako  
Mali  
Tel: 21.43.41

Mme Bernadette Traore-Sissokou  
FAO

Mme Djeneba  
FAO

## **Appendix 2: List of Members of AMELEF**

M. Traore Dominique	APROFA Tel: 22 16 75
M. Keita Mohamadou	FRUILEG Tel: 77 03 63
M. Yaffa Bakary	YAFFA Tel: 21 07 88
Mme Toure Aissata	MULTICHEM Tel: 21 24 07
M. Chaintron Jean-Marc/ M Sow Lamine	AGRO-NIGER Tel: 24 08 16/77 35 06
M Sanoko Abdoulaye/ Mme Diallo Madeleine	DNAE Tel: 21 23 14/21 49 28
M N'Diaye Mamadou	NEGOTRADE Tel: 24 03 13
M Niane Amadou	DEGUESSI-GROUPE Tel: 21 52 50
M Haidara Issa	PRIMEUR EXPANSION Tel: 21 45 58
M Fofana Moctar/ M Tapon Jacques	A O M Sarl Tel: 77 28 89

### Appendix 3: List of Members of ATRAPAL

(Association des Transformatrice de Produits Agricoles Locaux)

Mme Bocoum Nana Mourkerou Keita	La Maraichere Quinzambou, Face Toyota Tel: 21.11.86
Mme Sall Fatou Sanogo (Syrups)	Boukassoumbay Rue 620, Porte 69 Tel: 24.90.45
Mme Soumare Modia Sangare (Fonio Precuit)	Hippodrome Tel: 21.77.72
Mme Keita Oumou Djig a (Syrup)	Sokoniko Comme Rue 141 Tel: 22.95.67
Mme Toure Assetou Boire (Various)	Banconi
Mme Mabo Sakiliba (Syrup)	Medina-Coura Rue 1 Porte 13
Mme Diarra Tata Keita (Cornichon)	S/C Nana Keita TCF Niarela Tel: 21.11.86
Mme Sy Fatoumata Agne (Pate d'arachide)	Karofina
Mme Sylla Oumou Keita (Fonio Pre-cuit)	Bagadadji Ru Porte 222 Tel: 21.11.86
Bintou Four Samaki (Works with Madame Boire)	Tel: 21.23.83 AJIM Niarela
Rokiatou Kone Mme Malli (V erjer - Confiture et Citron Presse)	Niamakoro Tonka Tel: 21.17.71
Mme Simpara Aminata Fofana (Chips)	Quinzambougo

#### **Appendix 4: Relevant Trade Associations**

Agence pour la Promotion de la filiere Agricole (APROFA)

Agence pour la la Promotion des Entreprises Privees (APEP)

Association Malienne des Transformateurs de Cereales Locales (AMTCL)

Association Malienne des Exportateurs de Legumes et Fruits (AMELEF)

Association Malienne de Produits de Cueillete (AMEPROC)

Association de Transformateurs de Produits Agricoles, Legumes et Fruits (ATRAPAL)

Chambre de Commerce et d'Industrie du Mali (CCIM)

La Chambre d'Agriculture